

## CLAIM AMENDMENTS

Please amend the claims as described below. In accordance with 37 CFR §1.121, a complete listing of all claims in the application is provided below. Notably, the status of each claim is indicated in the parenthetical expression adjacent to the claim number.

Claims 1 – 59 (**canceled**).

1        60. (new) A method of imaging an artery in a patient using magnetic resonance  
2        imaging and an administered magnetic resonance contrast agent, comprising,  
3        collecting image data of an image sequence wherein the image sequence includes:  
4                image data which is representative of a center of k-space, and  
5                image data which is representative of a periphery of k-space, and  
6                wherein the image sequence is arranged to collect image data which is  
7                representative of the periphery of k-space before collecting image data which is  
8                representative of the center of k-space; and  
9                temporally correlating the administration of the magnetic resonance contrast agent  
10      to the patient with collecting image data which is representative of the center of k-space  
11      based on an estimated circulation time of the contrast agent in the patient.

1        61. (new) The method of claim 60 wherein temporally correlating the  
2        administration of the magnetic resonance contrast agent to the patient with collecting  
3        image data which is representative of the center of k-space further includes temporally  
4        correlating the administration of the magnetic resonance contrast agent to the patient  
5        based on the delay time in a delivery system.

1        62. (new) The method of claim 60 wherein temporally correlating administering  
2 the magnetic resonance contrast agent with collecting image data based on the circulation  
3 time of the contrast agent provides a concentration of contrast agent in the artery is  
4 substantially greater than a concentration of contrast agent in veins and background tissue  
5 adjacent to the artery while collecting the image data which is representative of the center  
6 of k-space.

1        63. (new) The method of claim 60 wherein the image sequence is a 3D pulse  
2 sequence.

1        64. (new) The method of claim 63 wherein the artery is the aorta and the image  
2 data corresponding to the aorta is reconstructed to create a maximum intensity projection.

1        65. (new) The method of claim 60 wherein temporally correlating the  
2 administration of the magnetic resonance contrast agent to the patient with collecting  
3 image data which is representative of the center of k-space further includes temporally  
4 correlating based on a location or size of the artery.

1        66. (new) The method of claim 60 wherein the imaging pulse sequence is  
2 arranged to collect image data which is representative of the periphery of k-space before  
3 and after collecting image data which is representative of the center of k-space.

1        67. (new) The method of claim 60 wherein the imaging sequence is a 3D pulse  
2    sequence having a TR that is less than 25 milliseconds.

1        68. (new) The method of claim 67 wherein the 3D pulse sequence further includes  
2    a flip angle is about 40 degrees.

1        69. (new) A method of imaging an artery in a patient using a magnetic resonance  
2    imaging apparatus, comprising,  
3        administering a magnetic resonance contrast agent to the patient;  
4        collecting image data of an imaging pulse sequence; and  
5        temporally correlating administering the magnetic resonance contrast agent with  
6    collecting image data based on the type of the imaging pulse sequence and the circulation  
7    time of the magnetic resonance contrast agent in the patient to provide a concentration of  
8    the contrast agent in the artery which is substantially greater than the concentration of  
9    contrast agent in veins adjacent to the artery during collecting the image data.

1        70. (new) The method of claim 69 wherein the imaging pulse sequence is arranged  
2    to collect image data which is representative of a periphery of k-space before and after  
3    collecting image data which is representative of a center of k-space.

1        71. (new) The method of claim 69 wherein the pulse sequence is arranged to  
2    collect image data which is representative of the center of k-space before collecting image  
3    data which is representative of the periphery of k-space.

1        72. (new) The method of claim 69 wherein temporally correlating administering the  
2        magnetic resonance contrast agent with collecting image data further includes correlating  
3        administering the magnetic resonance contrast agent with collecting the image data based  
4        on the amount of contrast agent administered.

1        73. (new) The method of claim 69 further including instructing the patient to  
2        suspend respiration while collecting the image data which is representative of a center of k-  
3        space.

1        74. (new) The method of claim 69 wherein temporally correlating administering the  
2        magnetic resonance contrast agent with collecting image data further includes  
3        administering the magnetic resonance contrast agent to the patient before collecting image  
4        data to provide a maximum concentration of the contrast agent in the artery relative to the  
5        veins adjacent to the artery to coincide with collecting the image data which is  
6        representative of a center of k-space.

1        75. (new) The method of claim 69 wherein the imaging sequence is a 3D pulse  
2        sequence having a TR that is less than 25 milliseconds.

1        76. (new) The method of claim 75 wherein the 3D pulse sequence is arranged to  
2        collect the image data which is representative of the center of k-space substantially at the  
3        beginning of the 3D pulse sequence.

1        77. (new) The method of claim 76 wherein administering the magnetic resonance  
2        contrast agent includes administering the contrast agent to the patient by bolus injection.

1        78. (new) The method of claim 75 wherein the 3D pulse sequence is arranged to  
2        collect the image data which is representative of the center of k-space substantially in the  
3        middle of the 3D pulse sequence.

1        79. (new) The method of claim 69 wherein the artery is the aorta and the image  
2        data corresponding to the aorta is reconstructed to create a maximum intensity projection.